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Structured data



Text



Voice



3D signals



Image

# TALENTMAP

Large Language Model  
-Guiding students to success



TEAM NAME:3 Coders

TEAM MEMBERS:

P.RAMYA  
A.SRESHTA  
B.SATHVIKA

AI DAYS-HACKATHON

Information extraction



Instruction following



Object recognition



Image captioning



Q&A



Sentiment





# INTRODUCTION & OBJECTIVES

- Problem statement:
  - Design an AI tool that helps students access local job market trends and provides career guidance aligned with regional industries.
- Objectives:
  - Analyze Local Job Market Trends.
  - Provide Personalized Career Recommendations.
  - Enhance Career Counseling with AI Chatbot.
  - Deliver Real-Time Labor Market Insights.
  - Support Skill Development & Education Planning.
  - Empower Students for Informed Decision-Making.
  - Contribute to Local Economic Growth.
- Scope:
  - Target Audience
  - Job Market Analysis
  - Career Recommendations
  - AI Chatbot Support
  - Skill Gap Identification
  - Data Sources
  - Geographical Focus
  - Technology Stack
  - Stakeholders



# INNOVATION AND GUIDANCE

- AI-Powered Personalized Career Mapping
- Real-Time Local Job Market Insights
- Interactive Chatbot for Instant Career Counseling
- Skill Gap Analysis with Targeted Learning Suggestions
- Industry-Aligned Career Pathways for Future Readiness

## • CREATIVE FEATURES:

- AI-Powered Career Matchmaking
- Real-Time Job Market Insights
- Interactive AI Chatbot Counselor
- Skill Gap Analyzer & Learning Recommendations
- Predictive Career Pathway Mapping



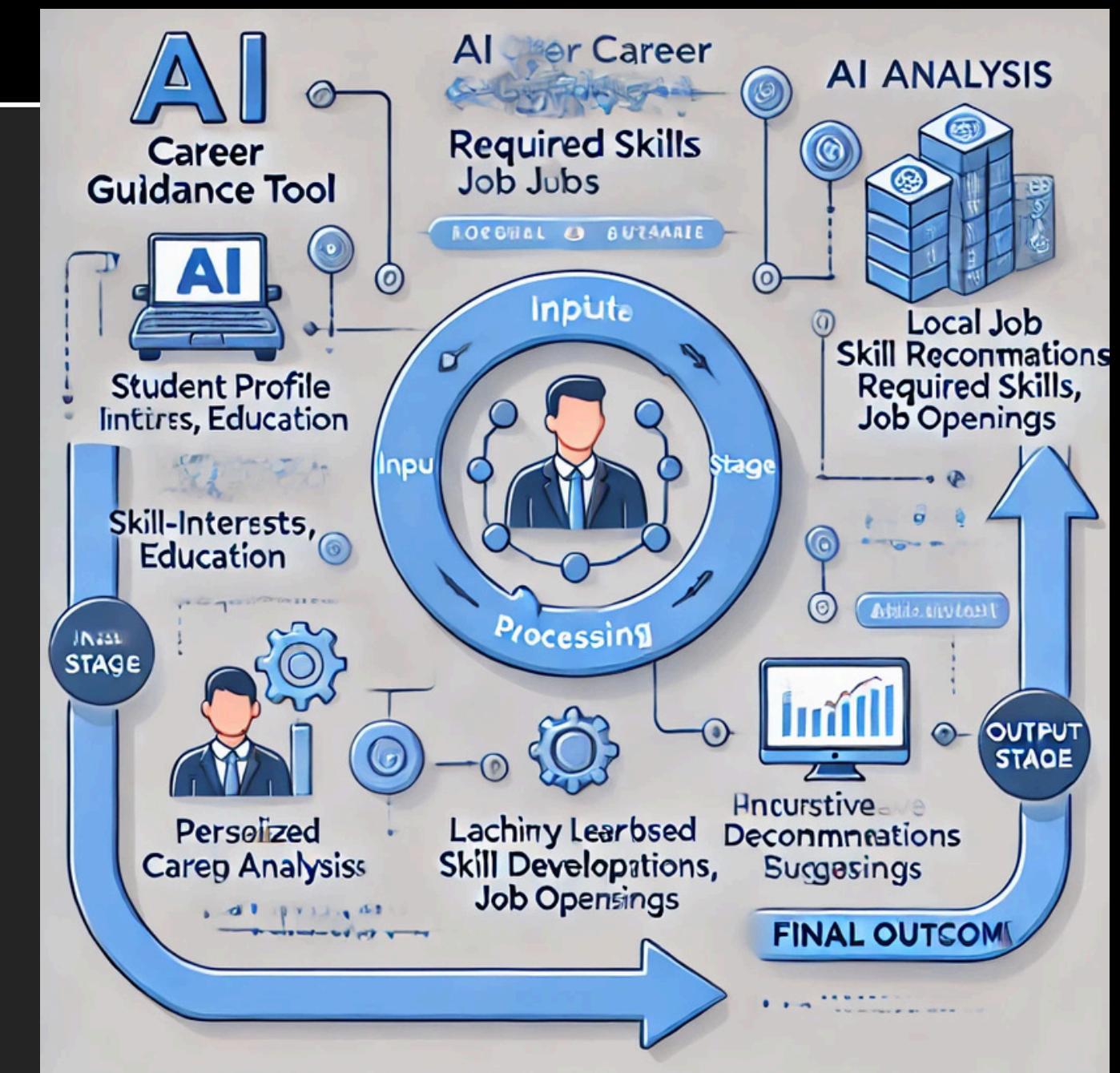
NEXT SLIDE



# TECHNICAL IMPLEMENTATION:

Technologies used:

- Machine Learning & AI
- Natural Language Processing(NLP)
- Web development
  - React
  - JavaScript
  - json
- Languages used
  - Python
- Tools
  - VS code
- Data Processing & Storage
  - MongoDB





# TECHNICAL IMPLEMENTATION:



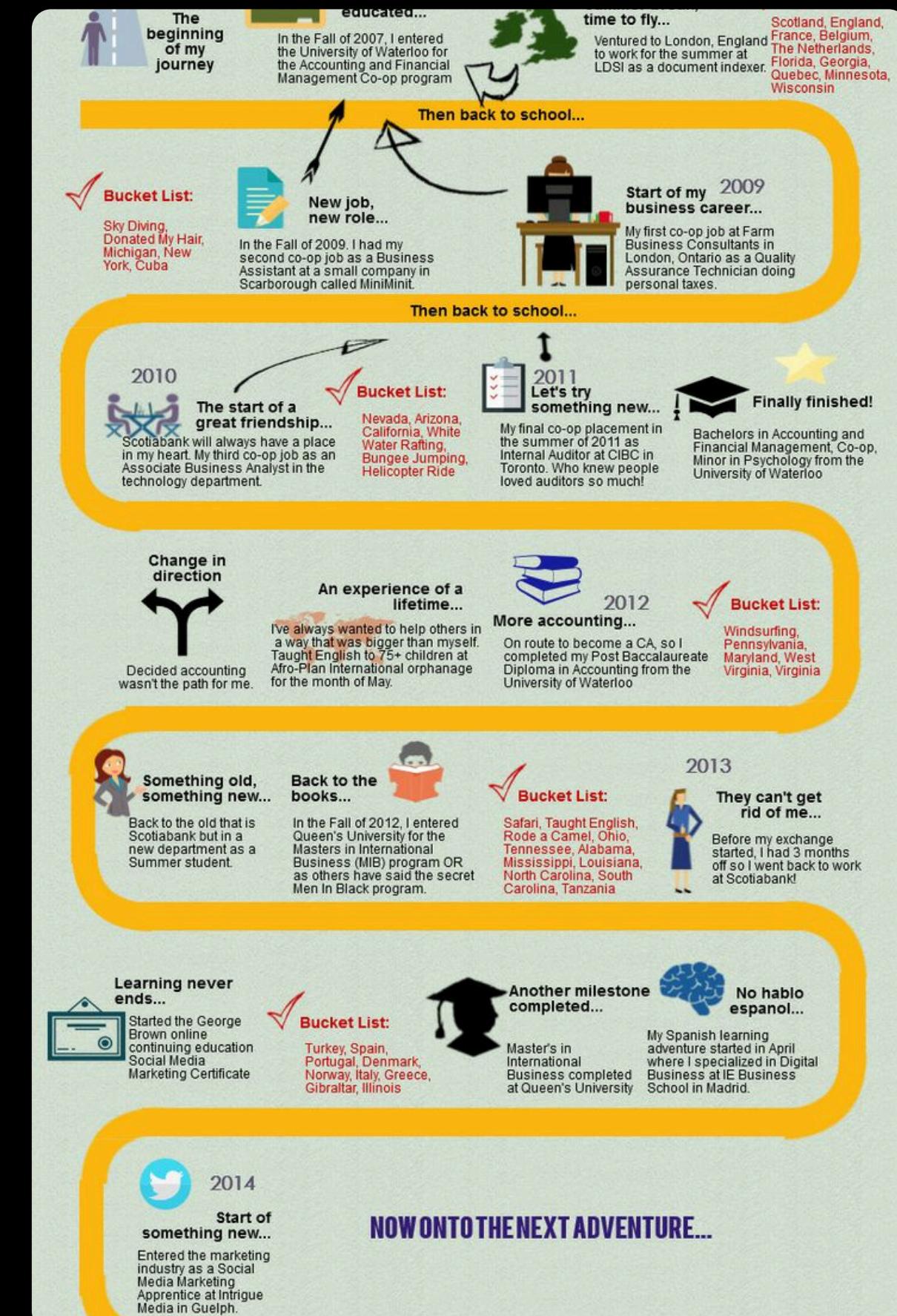
- Collects job market data from government labor reports, job portals (LinkedIn, Indeed, etc.), and industry reports using BeautifulSoup and Scrapy.
- Supervised learning, clustering, and recommendation systems.
- NLP, conversational AI, sentiment analysis.
- Frontend: Built using React.js/Angular (for web)
- Backend: Uses Node.js (Express)



# Feasibility and real world application

Many students face unemployment due to a lack of career guidance. The AI tool analyzes job trends, identifies skill gaps, and suggests opportunities, helping students secure relevant jobs.

The AI Career Guidance Tool helps universities, companies, and governments provide data-driven career recommendations. Industries adopt it for recruitment, workforce planning, and education alignment. Scalable via cloud deployment, API integrations, and multilingual AI, it ensures global accessibility. The AI Career Guidance Tool enhances student employability by aligning skills with market demands, reducing unemployment. It helps industries find qualified talent efficiently, streamlining recruitment. Its scalability and data-driven insights make it valuable for education, workforce planning, and economic growth.



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# PROJECT DEMO:

The screenshot shows a web application interface for an AI Job Assistant. At the top, there is a search bar with the placeholder "Architecte de solutions terrain II, GenAI, Google Cloud" and a "Send" button below it. To the right, there is a sidebar titled "Available Jobs" with a search bar and a total count of "Total Jobs: 125". Below the search bar, two job listings are displayed:

- Architecte de solutions terrain II, GenAI, Google Cloud**  
Company: Google  
Location: Waterloo, ON  
Date: 2025-01-30  
Remarque : En postulant à cette offre, vous pourrez indiquer où vous préférez travailler parmi les propositions suivantes : Toronto, ON, Canada; Montreal, QC, Canada; Waterloo, ON, Canada....  
[Apply Now](#)
- Cloud DevOps Manager**  
Company: PwC Canada  
Location: Waterloo, ON N2J 5A2  
Date: 2025-01-22  
A career within our Infrastructure practice will provide you with the opportunity to design, build, coordinate and maintain the IT environments for clients to run internal operations, collect data,...  
[Apply Now](#)



# RESULTS & FUTURE SCOPE

**AI Job Assistant**

Ask about jobs, skills, or career advice...

**Available Jobs**

cloud

Total Jobs: 6

**Cloud DevOps Manager**  
**Company:** PwC Canada  
**Location:** Waterloo, ON N2J 5A2  
**Date:** 2025-01-22

A career within our Infrastructure practice will provide you with the opportunity to design, build, coordinate and maintain the IT environments for clients to run internal operations, collect data,...

**Software Development Manager II, AI/ML, Google Cloud AI**  
**Company:** Google  
**Location:** Waterloo, ON  
**Date:** 2025-02-10

Minimum qualifications:  

- Bachelor's degree or equivalent practical experience.
- 8 years of experience with software development in one or more programming languages (e.g., Python, C, C++, Java,...)

**Apply Now**

**AI Job Assistant**

i want to become data scientists give road map

**Send**

\*\*Roadmap to Becoming a Data Scientist\*\* \*\*Phase 1: Foundation\*\* \* \*\*Math and Statistics:\*\* Calculus, linear algebra, probability, statistics \* \*\*Programming:\*\* Python, R, SQL \* \*\*Data Structures and Algorithms:\*\* Data types, lists, arrays, sorting, searching \* \*\*Database Management:\*\* Relational databases, SQL queries \*\*Phase 2: Data Science Tools and Techniques\*\* \* \*\*Machine Learning:\*\* Regression, classification, clustering, decision trees \* \*\*Deep Learning:\*\* Neural networks, convolutional neural networks, recurrent neural networks \* \*\*Data Visualization:\*\* Matplotlib, Seaborn, Tableau \* \*\*Cloud Computing:\*\* AWS, Azure, GCP \*\*Phase 3: Domain Knowledge\*\* \* \*\*Choose a specific industry:\*\* Healthcare, finance, retail, etc. \* \*\*Understand business problems:\*\* Identify data-driven solutions and opportunities \* \*\*Data Cleaning and Preprocessing:\*\* Handle missing values, outliers, data transformations \*\*Phase 4: Experience and Projects\*\* \* \*\*Build a portfolio:\*\* Showcase your skills through projects on Kaggle, GitHub, or personal blogs \* \*\*Participate in hackathons and competitions:\*\* Test your knowledge and gain experience with real-world problems \* \*\*Intern or work in the field:\*\* Gain practical experience and develop industry connections \*\*Phase 5: Continuous Learning\*\* \* \*\*Stay updated with industry trends:\*\* Attend conferences, read research papers, and engage in online forums \* \*\*Advance your skills:\*\* Explore new tools and techniques, such as natural language processing or computer vision \* \*\*Specialize in a specific area:\*\* Focus on areas like machine learning, big data, or artificial intelligence \*\*Additional Tips\*\* \* \*\*Join a community:\*\* Network with data scientists and professionals in your field \* \*\*Seek mentorship:\*\* Find experienced



## CONCLUSION

The AI Job Assistant efficiently connects job seekers with relevant opportunities by fetching real-time job listings and providing direct application links. Integrated with Gemini AI, it offers career guidance and roadmaps based on user queries. The tool simplifies job searching, enhances accessibility, and streamlines the application process, making it a valuable resource for aspiring professionals.

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**THANKYOU<<<**

